Serial No.: 10/717,970

: November 21, 2003 Filed

Page : 8 of 13

# Amendments to the Drawings:

The attached replacement sheet of drawings includes changes to FIGS, 5A-5B and replaces the original sheet including FIGS. 5A-5B.

In FIGS. 5A-5B, the legend "PRIOR ART" has been added, as required by the Examiner.

Attachments following last page of this Amendment:

Replacement Sheet (1 page)

Serial No.: 10/717,970

Filed: November 21, 2003

Page : 9 of 13

#### REMARKS

Claims 1-6, 8-12, and 19-23 are pending in this application with claims 1-3 and 19 being independent. Claims 1-6 and 19 have been amended and claims 7 and 13-18 have been canceled. Support for the present amendments may be found in the specification at, for example, page 3, lines 13-16 and page 9, lines 8-20.

#### Objection to Drawings

FIGS. 5A-5B were objected to for not including the legend "Prior Art." Applicants have amended the FIGS. 5A-5B to obviate this objection.

# Claim Rejections - 35 U.S.C. § 112

Claims 7 and 13 were objected as being indefinite. Applicants have canceled claims 7 and 13.

# Claim Rejections - 35 U.S.C. § 102

Claims 1 and 19-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by EP 1 204 087 A1 ("Tokimoto"). Applicants have amended independent claims 1 and 19 to obviate this rejection.

As amended, independent claim 1 recites a display device that includes a pixel comprising first to n-th light-emitting elements that emit different emission colors. The first to n-th light emitting elements are laminated and each of the first to n-th light-emitting elements emits light in a field sequential driving format, where n is a natural number, 2≤n.

Applicants request reconsideration and withdrawal of the rejection of claim 1 because Tokimoto fails to describe or suggest at least that the first to n-th light emitting elements are <u>laminated</u>, as recited in claim 1.

Tokimoto relates to a full color LED display system. See Tokimoto at Title. Tokimoto's display system includes a plurality of pixel lamps, one of which is shown in FIG. 7. See Tokimoto at col. 16, paragraph [0056]. Referring to FIG. 7 of Tokimoto, the illustrated pixel

Serial No. : 10/717,970 Filed : November 21, 2003

Page : 10 of 13

lamp is seen to include six red LEDs (11), three green LEDs (12), and three blue LEDs (13) all densely gathered and connected in series on a color-by-color basis. Id. To activate the different LED colors, Tokimoto's display system includes a plurality of drive signals for alternatively activating only the LEDs of one color among the red, green, and blue at a time. See Tokimoto, FIG. 8. Tokimoto describes that, in the conventional method, although one out of the three lines are lighted, the LEDs of the other lines are all lighted in unison and, as such, the conventional method requires more activating current applied to one line than the activating current necessary in Tokimoto's display system. See Tokimoto at col. 19, paragraph [0067]. As such, Tokimoto generally describes a system for reducing the activating current needed to activate the LED lines in the pixel lamps.

Although Tokimoto generally describes a display device that includes a plurality of pixel lamps with different LED colors, it fails to describe or suggest that the light emitting elements are laminated, as recited in claim 1. For at least the foregoing reasons, applicants request reconsideration and withdrawal of the rejection of claim 1, along with its dependent claims.

Independent claim 19 recites a driving method of a display device. The method includes, among other features, "the first to n-th light emitting elements are laminated." As such, applicants request reconsideration and withdrawal of the rejection of claim 19 and its dependent claim 20, for at least the reasons presented above with respect to claim 1.

Claims 3-6, 9-12, 15-18 and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication Number 2003/0117348 ("Knapp"). Applicants have amended independent claim 3 to obviate this rejection.

As amended, independent claim 3 recites a display device that includes, among other features, "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are <a href="laminated">laminated</a>." Applicants request reconsideration and withdrawal of the rejection of claim 3 because Knapp fails to describe or suggest at least that the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are <a href="laminated">laminated</a>, as recited in claim 3.

Knapp relates to an active matrix electroluminescent display device. See Knapp at Title.

Knapp's display device includes an array of pixels (10), each including a plurality of display

Serial No.: 10/717,970 Filed: November 21, 2003

Page : 11 of 13

elements (11a-d). See Knapp, FIG. 4. Referring to FIG. 4 of Knapp, the plurality of display elements (11a-d) are connected in a series arrangement with one another. See Knapp at Abstract. Apparently, subdividing each pixel in this way reduces the high voltage drop across the power lines (13) and also reduces the wasted power due to the resistance of the power line (13). Nowhere does Knapp describe or suggest that "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are laminated," as recited in claim 3.

In rejecting claims 15-18, the Office Action asserts that "it would be inherent for the light emitting elements and pixels electrodes to be laminated." See Office Action at page 9, lines 3-4. Applicants disagree. First, applicants note that in some situations it is possible that the plurality of light-emitting layers and the plurality of pixel electrodes are not laminated, and as such, Knapp cannot inherently disclosure such features. Second and contrary to the Office Action's assertion, Knapp's teachings suggest that the plurality of light-emitting layers and the plurality of pixel electrodes are not laminated. For example, and referring to FIG. 5, Knapp illustrates a schematic diagram of the layout of display elements within the pixel (10). See Knapp at page 6, paragraph [0075]. Each of the display elements in pixel (10) illuminated one of the corresponding regions 50a-50d. *Id.* For example, the light emitting layer of area 50a illuminates only region 50a, while light emitting layer of area 50b illuminated only region 50b. As such, while the light emitting layer and the pixel electrode of area 50a may be laminated to each other, the light emitting layer of area 50a and the light emitting layer of area 50b cannot be laminated, and the light emitting layer of area 50a and the pixel electrode of area 50b also cannot be laminated.

Accordingly, Knapp fails to describe or suggest that "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are <u>laminated</u>," as recited in claim 3. For at least the foregoing reasons, applicants request reconsideration and withdrawal of the rejection of claim 3, along with its dependent claims.

Claims 2, 8, 14 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 2002-297083 ("Kltakado") in view of JP 2002-287664 ("Kondo"). Applicants have amended independent claim 2 to obviate this objection. Similar to independent claim 3, independent claim

Serial No. : 10/717,970 Piled : November 21, 2003

Page : 12 of 13

2 is amended to include "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are <u>laminated</u>." Applicants assert that Kltakado and Kondo, either alone or in the proposed combination, fail to describe or suggest that "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are <u>laminated</u>," as recited in claim 2.

Kltakado relates to a system for reducing the difference in light emission brightness for primary colors red, green, and blue. See Kltakado at page 1. Referring to FIG. 1 of Kltakado, a memory (6) stores an image signal received from the signal line through the transistor (5). The stored image is supplied to the pixel electrode (7) by a second transistor (8), which is switched on/off by an image display selection line (4). Nowhere is Kltakado seen to describe or suggest that "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are laminated," as recited in claim 2. Kondo fails to remedy the shortcomings of Kltakado to describe or suggest that "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are laminated." as recited in claim 2.

In rejecting claim 14, the Office Action seems to agree that neither Kltakado nor Kondo expressly describes or suggests that "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are <u>laminated</u>." However, similar to the rejection of claims 15-18, the Office Action asserts that such features are inherent in the teachings of Kltakado and Kondo. Applicants disagree. As pointed out above, it is possible for the light-emitting elements layers and the plurality of pixel electrodes <u>not</u> to be laminated. As such, absent express teachings of Kltakado and Kondo to the contrary, they cannot inherently disclose that "the first to n-th light-emitting layers and the first to (n+1)th pixel electrodes are <u>laminated</u>," as recited in claim 2.

For at least the forgoing reasons, applicants request reconsideration and withdrawal of the rejection of claim 2, along with its dependent claims.

#### Conclusion

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be

Serial No.: 10/717,970 Filed: November 21, 2003

Page : 13 of 13

exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The \$120 fee for the extension of time is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account 06-1050.

Respectfully submitted,

Reg. No. 37,640

Date: 10/10/06

Fish & Richardson P.C. 1425 K Street, N.W. 11th Floor

Washington, DC 20005-3500 Telephone: (202) 783-5070 Facsimile: (202) 783-2331

40364817.doc